

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE		Numero: Number:	Pagina/Page:
(DIN EN 10204:2004E - ISO 10474: 2013 3.1.B)		32202	1

Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 27241 - 26804	Lista de Empaque: Packing List: 17912	Fecha/Date: 8 de enero de 2019
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-18e Conform to ASME II Ed. 2017, ASME SA-234 Grade WPB	Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2018		Factura/Invoice: Bocas / Ends Biselado / Bevelled ends

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C				
ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HBW	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T10869	73	CODO 3 X 90° R.L. CED-STD	356	538	38	128					
2	T95484	5	CODO 16 X 90° R.L. CED-XS	287	473	35	143					
3	T91328	110	TEE 4 CED-STD	270	429	32	135					
4	T96575	120	CODO 6 X 45° CED-STD	287	425	31	138					
5	T95410	15	RED. CONC. 10 X 8 CED-STD	314	484	40	143					
6	T96023	80	CODO 4 X 45° CED-STD	334	456	33	143					
7	S44660	50	CODO 2 X 45° CED-STD	334	496	29	137					
8	T94250	30	RED. CONC. 8 X 6 CED-STD	327	490	38	140					
9	T95410	12	CODO 14 X 45° CED-STD	276	445	36	124					
10	T94154	15	CODO 8 X 45° CED-STD	272	454	31	140					
11	T92058	25	CODO 8 X 45° CED-STD	346	484	30	141					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T10869	10869	0.390	0.220	0.940	0.004	0.003	0.210	0.030	0.045	0.008	0.030	0.000	0.000
HF	T95484	95484	0.290	0.160	0.660	0.007	0.002	0.290	0.040	0.061	0.026	0.030	0.002	0.000
HF	T91328	91328	0.320	0.180	0.760	0.009	0.002	0.280	0.030	0.067	0.020	0.030	0.000	0.000
HF	T96575	96575	0.300	0.170	0.660	0.011	0.002	0.270	0.060	0.056	0.032	0.030	0.002	0.000
CF	T95410	95410	0.310	0.170	0.700	0.009	0.001	0.280	0.040	0.076	0.033	0.040	0.002	0.000
HF	T96023	96023	0.310	0.170	0.690	0.009	0.001	0.270	0.050	0.059	0.029	0.030	0.003	0.000
HF	S44660	44660	0.310	0.170	0.720	0.008	0.000	0.260	0.050	0.070	0.020	0.031	0.002	0.002
CF	T94250	94250	0.330	0.190	0.690	0.007	0.003	0.300	0.050	0.063	0.018	0.030	0.002	0.000
HF	T95410	95410	0.310	0.170	0.700	0.009	0.002	0.280	0.040	0.076	0.033	0.040	0.002	0.000
HF	T94154	94154	0.320	0.180	0.700	0.008	0.001	0.270	0.060	0.087	0.022	0.030	0.003	0.000
HF	T92058	92058	0.330	0.180	0.750	0.012	0.003	0.270	0.050	0.075	0.029	0.040	0.002	0.000

Certificamos que los resultados de los Análisis Químicos y Pruebas Mecánicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con N°:
We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B N°:
17047654 18054675 18013144 18062842 18052582 18062837
17058106 18047404 18051312 18039214 18029472
"Este material cumple con los requerimientos especificados en la orden".
"The material of this certificate heat number mentioned above is in compliance with the requirements specified in the order".

<p>Notas: Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max. Tiempo de permanencia 10'. Inspección Dimensional: Satisfactoria. HF: FORMADO EN CALIENTE/HOT FORMED</p>	<p>Notas: Hot formed fittings in a range from 620°C to 980°C, cooled in still air. Cold formed normalized at 940°C max. Holding time 10'. Visual dimensional check: Satisfactory CF: FORMADO EN FRIO/COLD FORMED</p>
 Quality Manager/Jefe de Calidad: ING. ALFONSO ORTEGA GARCIA	
<p>The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting./ The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60. Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60. MATERIAL ACCORDING TO NACE MR0175/ISO 15156, 2015 AND NACE MR0103,2015 ONLY HARDNESS</p>	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">FOR03161</div>	

**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474: 2013 3.1.B)

Numero:
Number:

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Especificaciones y Grados / Standard or Specification and Steel Grade	Seamless Fittings according to ASTM A 234 WPB-18e Conform to ASME II Ed. 2017, ASME SA-234 Grade WPB	Dimensiones y tolerancias / Dimension and tolerances	ASME B 16.9 - 2018	Factura/Invoice: Bocas / Ends	Biselado / Bevelled ends		

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C				
ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HBW	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
12	T96669	36	CODO 12 X 90° R.L. CED-STD	319	490	40	129					
13	T92982	60	CODO 4 X 90° R.C. CED-STD	337	491	39	122					
14	T92982	20	CODO 5 X 90° R.C. CED-STD	327	433	30	146					
15	T94028	35	CODO 3 X 90° R.C. CED-STD	358	505	36	144					
16	T92982	12	CODO 5 X 90° R.L. CED-STD	404	503	30	144					
17	T91329	38	CODO 5 X 90° R.L. CED-STD	277	502	30	145					
18	T89695	18	RED. CONC. 12 X 8 CED-STD	246	416	34	137					
19	S44660	39	CODO 2 X 90° R.C. CED-STD	334	496	29	137					
20	S44817	1	CODO 2 X 90° R.C. CED-STD	341	501	30	126					
21	T49289	50	CODO 1 X 45° CED-XS	291	431	52	126					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T96669	96669	0.310	0.180	0.670	0.009	0.002	0.280	0.040	0.064	0.020	0.030	0.002	0.000
HF	T92982	92982	0.320	0.170	0.760	0.007	0.001	0.270	0.050	0.077	0.018	0.040	0.002	0.000
HF	T92982	92982	0.320	0.180	0.750	0.008	0.001	0.280	0.040	0.075	0.018	0.040	0.002	0.000
HF	T94028	94028	0.320	0.180	0.680	0.012	0.001	0.290	0.070	0.057	0.021	0.030	0.004	0.000
HF	T92982	92982	0.320	0.180	0.750	0.007	0.001	0.270	0.040	0.076	0.018	0.040	0.002	0.000
HF	T91329	91329	0.330	0.180	0.790	0.011	0.001	0.290	0.030	0.066	0.019	0.030	0.003	0.000
CF	T89695	89695	0.320	0.180	0.720	0.008	0.003	0.280	0.040	0.070	0.015	0.030	0.000	0.000
HF	S44660	44660	0.310	0.170	0.720	0.008	0.000	0.260	0.050	0.070	0.020	0.031	0.002	0.002
HF	S44817	44817	0.330	0.190	0.740	0.007	0.001	0.310	0.050	0.020	0.020	0.015	0.002	0.001
HF	T49289	49289	0.310	0.150	0.530	0.007	0.001	0.190	0.060	0.043	0.027	0.030	0.000	0.000

Certificamos que los resultados de los Análisis Químicos y Pruebas Mecánicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con N°: 18068392 18054677 18054678 18058419 18053310 18019540 17063151 17058106 17064689 11646

We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B N°: 18068392 18054677 18054678 18058419 18053310 18019540 17063151 17058106 17064689 11646

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